COMMENTARY

Bark, don't bite!

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Competing interests:
None declared

West J Med
2000;173:234

Dog-bite injuries to children are more than a nuisance. There are about 334,000 emergency department visits and 20 deaths from dog-bite injuries each year in the United States, and the highest incidence is in children—especially boys aged 5 to 9 years. Children seen in emergency departments are more likely than older persons (73% vs 30%) to be bitten on the face, neck, and head.[1,2] Severe dog bites can lead to devastating injuries and death. Unfortunately, there is a paucity of analytic epidemiologic data to guide our prevention strategies.[3]

This is the first randomized controlled trial of a primary prevention intervention to reduce the prevalence of these injuries. As in most public health and injury interventions, tackling the dog-bite problem would logically start with attempts to control the environment, the agent (the dog), or both. These could include physical measures to separate children from strange dogs, restricting sales and ownership of high-risk breeds, and enforcing leash laws. The study by Chapman and colleagues is aimed at the host (the child) and uses a relatively short classroom curriculum to teach children appropriate techniques for approaching dogs.

The study is a refreshing move beyond describing the problem and its consequences. The authors used a cluster randomized trial design and relied on observational measures of how children actually approach a strange, tethered dog at school. The results of this study are impressive. There was a 70% absolute reduction in the proportion of children who petted a strange dog without hesitation. The magnitude of this difference is unlikely to be due to confounding or baseline differences between groups, but more information on the comparability of the 2 groups would be helpful.

The impressive nature of these results leads to more questions, some of which the authors raise in their own discussion. Short-term interventions of any kind often lead to impressive results, but the effect may decay considerably over time. Also, did the presence of the handler affect the nature of the child-dog interaction, making the scenario less than realistic? The intervention appears to work if the child approaches a tethered dog, but what proportion of children who are bitten have been approached by a menacing, unleashed dog? Would these skills have had an effect in such an encounter? Finally, the outcome measure was only a proximate measure. We do not know if decreased petting behavior will translate to fewer bite injuries.

The authors deserve considerable credit for their efforts to evaluate a preventive effort to reduce the prevalence of dog-bite injuries. Let's hope that this initial effort will lead to further studies that show that a dog's bark will be worse than its bite.

References

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